

REMARKS

Claims 11,12 and 14-24 are pending in this application. By this response, claims 11 and 14-18 are amended. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

The Office Action rejects claims 11, 12, 14-16 and 18-24 under 35 U.S.C. § 102(b) as being anticipated by Cushing (USP 6,011,652) and claims 17 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Cushing in view of Alexander (USP 5,726,784). These rejections are respectfully traversed.

The Office Action alleges that Cushing teaches the claimed optical communication device wherein each of said plurality of signals corresponds to an optical payload channel, the optical payload channels being separated by a channel spacing and wherein the plurality of optical payload channels is comprised of six optical payload channels, as claimed. The Office Action alleges that these features are taught by Figs. 6a and 7, of Cushing. Applicant respectfully disagrees.

Both Figs. 6a and 7 describe the passband parameters of various filters. Fig 6a illustrates two passbands. The primary passband is located at 1500 nm to 1600 nm and the secondary passband at around 1250-1350 nm. In Fig. 6a, the secondary passband has reliable transmission of signals only about 42% of the time. See column 4, lines 38-55.

Fig. 6b shows an optimization of the filter of Fig. 6a, which increases the transmission reliability of the secondary passband. Fig. 6a and 6b illustrate a

filter having broad passband regions. Cushing does not teach passband regions as narrow as 1 nm and 20 nm as claimed.

Also, Fig. 7 illustrates another filter having two passbands. The primary passband is at 1550 nm (1500-1600 nm), while the secondary passband is at 980 nm (950-1050 nm). See column 5, lines 4-11. The fine line representation in Fig. 7 illustrates the filter prior to optimization. The filter prior to optimization does not have well defined passbands at regions around both 1550 nm and 980 nm. In fact, many unwanted signals are able to pass through the filter. When optimized, as shown by the bold lines, the passbands are well defined at 980 nm and 1550 nm. The other areas have been reduced to small peaks in which signals cannot be passed.

Although the regions become well defined during optimization, these regions are still considered broad passband regions. Each of these regions are around 100 nm wide and thus do not teach the claimed narrow regions of approximately 1 nm and 20 nm.

Thus, Cushing fails to teach, *inter alia*, a single optical interference filter that includes a plurality of alternating high and low refractive indices and has two passbands, a first passband being configured to add/drop a plurality of optical signals corresponding to an optical payload channel, each of the optical signals being at a respective one of a plurality of wavelengths, the first passband being approximately 1 nm wide around a first center wavelength within said plurality of wavelengths of said optical signals; a second passband of said optical interference filter being configured to add/drop a service channel at a wavelength different than

the plurality of wavelengths of the optical signals, the second passband being approximately 20 nm wide around a second center wavelength corresponding to said service channel, as recited in claim 11.

Also Cushing fails to teach, *inter alia*, an optical interference filter coupled to said optical communication path, said optical interference filter including a plurality of alternating high and low refractive indices and being configured to select by a first passband a grouping of said plurality of optical signals and by a second passband said service channel optical signal, said first passband being approximately 1 nm wide around a first center wavelength within said plurality of wavelengths of said plurality of optical signals, and said second passband being approximately 20 nm wide around a second center wavelength corresponding to said wavelength of said service channel, as recited in claim 14.

Further in regard to dependent claims 19, 23 and 24, the Office Action asserts that Fig. 7 shows peaks at 1000, 1150, 1200, 1325, 1350 and 1550 nm. The Office Action considers these peaks to correspond to optical payload channels claimed by Applicant. Applicant respectfully submits that this understanding is incorrect. First, Cushing teaches filters for providing two passbands and does not teach using optical payload channels. Even if the peaks alleged in the Office Action are represented by the filter illustrated in Fig. 7, this would provide six passbands not six optical payload channels. Second, Cushing teaches that only two passbands are provided in the filter of Fig. 7. The other area of peaks are extraneous reflection bands that are eliminated when the filter is optimized. Thus, Cushing's teachings are contrary to the Office Action's allegations.

Nowhere does Cushing teach, *inter alia*, and wherein the plurality of optical payload channels is comprised of six optical payload channels, as recited in claim 19, 23 and 24.

Further, Alexander fails to make up for Cushing's deficiencies. Thus, in view of the above, Applicant respectfully submits that Cushing fails to teach each and every feature of the claimed invention as required. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Conclusion

For at least these reasons, it is respectfully submitted that claims 11, 12 and 14-24 are distinguishable over the cited art. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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